AMENDMENTS TO THE CLAIMS

The below listing of claims replaces all prior versions and listings of claims in the application:

1. (Currently Amended) A liquid accelerator comprising a fluoride-containing aqueous aluminum salt, wherein the fluoride-containing aqueous aluminum salt is the product of a reaction of aluminum sulfate and hydrofluoric acid, aluminum hydroxide, and one or more kinds of lithium salts, wherein the one or more kinds of lithium salts are at least one of lithium hydroxide, lithium carbonate, or lithium sulfate, and wherein the ratio A/S of the number of moles of Al_2O_3 (A) to the number of moles of SO_3 (S) in the liquid accelerator is 0.35 to 0.55.

2. (Currently Amended) The liquid accelerator according to ~~Claim~~claim 1, wherein total alkali content of the liquid accelerator is less than 1 % by mass of the liquid accelerator.

3. (Previously Presented) The liquid accelerator according to claim 1, wherein 15 to 35 % by mass of aluminum sulfate, 1 to 5 % by mass of hydrofluoric acid, less than 15 % by mass of aluminum hydroxide, and 3 to 25 % by mass of one or more kinds of lithium salts are used for the liquid accelerator.

4. (Canceled)

5. (Previously Presented) The liquid accelerator according to claim 1, further comprising SO_3 wherein the source of SO_3 is one or more kinds of sulfuric compounds comprising at least one of sulfuric acids, aluminum sulfates, lithium sulfates, sodium sulfates, or potassium sulfates.

6. (Previously Presented) The liquid accelerator according to claim 1, further comprising one or more members comprising at least one of C_1 to C_{10} organic monocarboxylic or dicarboxylic acids or the metallic salts thereof.

7. (Previously Presented) The liquid accelerator according to claim 1, further comprising at least one of alkanolamine, alkylene diamine, or triamine.

8. (Currently Amended) A method comprising:
using the liquid accelerator according to claim 1 for sprayed mortar or concrete applied to a dry or wet spraying process.

9. (Previously Presented) A method of dry or wet spraying comprising:
adding the liquid accelerator according to claim 1 to a cement composition in a transport pipe, a watering nozzle, or a spray nozzle, wherein the liquid accelerator is added either directly to the composition by means of an accelerator feed device, or to the water content.

10. (Previously Presented) A method of dry or wet spraying comprising:
adding the liquid accelerator according to claim 1 to base mortar or concrete which is added with a high-range AE water-reducing agent, retarder of polycarbonic acid base, or a combination thereof.

11. (Currently Amended) A liquid accelerator comprising: a fluoride-containing aqueous aluminum salt, wherein the fluoride-containing aqueous aluminum salt is the product of a reaction of aluminum sulfate and hydrofluoric acid, aluminum hydroxide, and one or more kinds of lithium salts, wherein the one or more kinds of lithium salts are at least one of lithium hydroxides, lithium carbonates or lithium sulfates, and
wherein the ratio A/S of the number of moles of Al_2O_3 (A) to the number of moles of SO_3 (S) in the liquid accelerator is 0.35 to [[1.0]]0.55.

12. (Previously Presented) The liquid accelerator according to claim 11, wherein total alkali content of the liquid accelerator is less than 1 % by mass of the liquid accelerator.

13. (Previously Presented) The liquid accelerator according to claim 11, wherein 15 to 35 % by mass of aluminum sulfate, 1 to 5 % by mass of hydrofluoric acid, less than 15 % by mass of aluminum hydroxide, and 3 to 25 % by mass of one or more kinds of lithium salts, wherein the lithium salts are at least one of lithium hydroxides, lithium carbonates, or lithium sulfates, are used for the liquid accelerator.

14. (Previously Presented) The liquid accelerator according to claim 11, further comprising SO_3, wherein the source of SO_3 is one or more kinds of sulfuric compounds that are at least one of sulfuric acids, aluminum sulfates, lithium sulfates, sodium sulfates, or potassium sulfates.

15. (Previously Presented) The liquid accelerator according to claim 11, further comprising one or more members that are at least one of C_1 to C_{10} organic monocarboxylic or dicarboxylic acids or the metallic salts thereof.

16. (Previously Presented) The liquid accelerator according to claim 11, further comprising one or more members that are at least one of alkanolamine, alkylene diamine, or alkylene triamine.

17. (Previously Presented) A method comprising:
using the liquid accelerator according to claim 11 for sprayed mortar or concrete applied to a dry or wet spraying process.

18. (Previously Presented) A method of dry or wet spraying comprising:
adding the liquid accelerator according to claim 11 to a cement composition in a transport pipe, a watering nozzle, or a spray nozzle, wherein the liquid accelerator is added either directly to the composition by means of an accelerator feed device, or to the water content.

19. (Previously Presented) A method of dry or wet spraying comprising:
adding the liquid accelerator according to claim 11 to a base mortar or concrete which is added with a high-range AE water-reducing agent, a retarder of polycarbonic acid base, or a combination thereof.

20. (Canceled)

21. (New) A liquid accelerator comprising a fluoride-containing aqueous aluminum salt, wherein the fluoride-containing aqueous aluminum salt is the product of a reaction of aluminum sulfate and hydrofluoric acid, aluminum hydroxide, and one or more kinds of lithium salts, wherein the one or more kinds of lithium salts provide a content of lithium ions in the liquid accelerator in the range of 0.01 to 1.0% by mass of cement in a mortar or concrete composition into which the liquid accelerator is to be added, and wherein the ratio A/S of the number of moles of Al_2O_3 (A) to the number of moles of SO_3 (S) in the liquid accelerator is 0.35 to 0.55.